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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/965,538

09/27/2001

Takayo Katsuki

36856.550

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03/10/2005

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EXAMINER

EASTHOM, KARL D

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,538

Applicant(s)

KATSUKI ET AL.

Examiner

Karl D. Easthom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,21,22 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,21,22 and 24-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/3/5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-4, 7-10, 21-22, and 24-26 are rejected under 35 U.S.C. 102(b) as anticipated by Camp or, in the alternative, under 35 U.S.C. 103(a) as obvious over Camp in view of Becker. Camp discloses the claimed invention at Figs. 2 and 4. The junction portion is where the top of the U touches the thermistor, with the vertical portion one or both of the legs of the U shaped channel portion. The legs are bent vertically in a downward direction since they are bent vertically, and extend in a downward direction. The lower end portion is the middle horizontal portion of the U, and could include the portions 14 and 15 if “end” requires the end of the terminal to be included. In claim 3, the overlap is seen. In claim 4, the thermistor is round. In claim 7, the portion 15 meets the claim. In claim 8, the junction portion is only near the center since it is in the periphery, and near is a term of degree. In claim 9, the upper vertical

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leg portion is longer. In claim 10, the bent part is the part where 13 points in Fig. 2. Claims 21-26 are similar to claims above. As the 103 alternative, where the Camp vertical portion is not met as noted above, Becker et al. discloses a bent vertical portion in the vicinity of the center at the sole figure, as typical in the thermistor arts in order to ensure securing terminals to a thermistor like that of Camp, so that such an arrangement would have been obvious, where for example, the terminals are made to accommodate larger thermistors, or are made smaller to decrease material costs, or simply to better support a load since the support should center the weight for better support as taught in first year physics.

4. Claims 1, 3-4, 7-10, 21-22, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rehnelt in view of Camp and Becker et al. Rehnelt discloses at Fig. 2 all of the claimed invention except explicit mention of the electrodes (claims 1, 21), and the lower end portion of claims 1, 7, 24 and 25 (termed horizontal connection portion). Camp discloses electrodes for contact purposes at col. 2, lines 19-25 so that such an electrode is obvious, and discloses at col. 2, lines 20-65 horizontal connection portions 13, 15, or 23, 25 at Fig. 7, for the purpose of forming contact pads for mounting, rendering such a modification obvious. Becker discloses a vertical leg portion at the sole figure closer to the center of a device which would have been obvious to ensure that a load is better supported since any first year physics students would realize that the object would be better supported with the supporting structure centering the weight. The overlapping junction portions (claims 3, 21) are at Fig. 2 of Rehnelt. The vertical leg portion at the left-hand side appears to be in the vicinity of the center since it is almost or is, entirely within the periphery of the device (claims 1, 23). As an alternative, it would have been obvious to have a vertical portion entirely inside to accommodate larger

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thermistors, since a larger thermistors would overlap such a portion. For claims 4 and 21, Rehnelt discloses the button shape at Fig. 3. Claims 5 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (with or without the noted alternative art), or Rehnelt with Camp, further in view of Nagao et al. The claimed invention is as disclosed above except for the electrode material. Nagao discloses such a material at the abstract as conventional and for improving flash resistance, see col. 6 and table 5. It would have been obvious to employ the well known material in the manner of Nagao to improve the flash resistance.

5. Claim 6 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (with or without the noted alternative art of Becker), or Rehnelt with Camp and Becker et al., further in view of Ikeda et al. The claimed invention is as disclosed as noted above except for the terminal material. Ikeda discloses such a material at col. 10, lines 1-5 as a good elastic material for improving thermistors, such that it would have been obvious to employ the well known material in the manner of Ikeda to improve the elasticity.

6. Applicant's arguments filed 2/21/5 have been fully considered but they are moot, or not persuasive.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is (272) 571-1989. The examiner can normally be reached on M-Th, 5:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (272) 571-1989. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karl D Easthom
Primary Examiner
Art Unit 2832

KDE